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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ULRICH MULLER, GUSAV PEUKER,
DETLEF SONNENSCHEIN, DETLEF WINTER,
MICHAEL DEGNER, and GERD THIEMANN

Appeal 2008-1139
Application 10/677,880
Technology Center 2600

Decided: April 28, 2008

Before KENNETH W. HAIRSTON, ROBERT E. NAPPI, and KARL EASTHOM, *Administrative Patent Judges*.

HAIRSTON, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 8 to 15. We have jurisdiction under 35 U.S.C. § 6(b).

We will sustain the rejection.

STATEMENT OF THE CASE

Appellants have invented a method for continuously measuring the flatness of a moving hot metal strip or the end face of a coiled metal strip (Figs, 1 and 4; Specification 5 and 6).

Claims 8 and 11 are representative of the claims on appeal, and they read as follows:

8. A method for continuously measuring the flatness of a moving hot metal strip, the method comprising projecting a shadow in the form of a line pattern onto said moving hot metal strip, and detecting said line pattern on said moving hot metal strip with a camera.

11. A method for continuously measuring the flatness of an end face of a coil when coiling a metal strip, the method comprising the steps of projecting a shadow in the form of a line pattern onto said end face, and detecting said line pattern on said end face with a camera.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Harding US 5,367,378 Nov. 22, 1994

Pirlet, "A noncontact system for measuring hot strip flatness," Iron and Steel Engineer, July 1983, pages 45 to 50.

The Examiner rejected claims 8 to 15 under 35 U.S.C. § 103(a) based upon the teachings of Harding and Pirlet.

ISSUE

Appellants contend *inter alia* that the skilled artisan would not have combined the teachings of the applied references in the absence of the disclosed and claimed invention (Br. 7 to 17). The primary issue before us,

therefore, is whether the applied prior art teaches or would the applied prior art have suggested to the skilled artisan a method for continuously measuring flatness of a moving hot metal strip or the end face of a coiled metal strip?

FINDINGS OF FACT

Appellants describe a flatness measuring method that projects a line pattern onto a moving metal surface or onto an end face of a coiled metal strip, and detects the pattern with a camera.

Harding describes a method for continuously measuring the flatness of a metal panel/strip 16 (col. 1, ll. 53 to 58; col. 2, l. 30; col. 3, ll. 34 and 35; col. 4, ll. 5 to 8). The method comprises projecting a shadow in the form of a line pattern 18 onto the metal panel 16, and detecting the line pattern on the metal panel with a camera 14 (Fig. 1; Abstract; col. 3, ll. 22 to 43; col. 4, ll. 44 to 47). Harding notes that it is known to automate the inspection of the automobile metal panels (col. 1, ll. 20 to 26).

The Examiner cited the publication by Pirlet for a teaching of inspection of a "moving hot metal strip (see page 45 col. 1) as claimed" (Ans. 4). According to the title, the Pirlet publication describes "[a] noncontact system for measuring hot strip flatness."

PRINCIPLES OF LAW

The Examiner bears the initial burden of presenting a prima facie case of obviousness. *In re* Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992). If that burden is met, then the burden shifts to the Appellant to overcome the prima facie case with argument and/or evidence. *See Id.*

The Examiner's articulated reasoning in the rejection must possess a rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007).

During ex parte prosecution, claims must be interpreted as broadly as their terms reasonably allow since Applicants have the power during the administrative process to amend the claims to avoid the prior art. *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

The reading of a claim in the light of the specification to interpret broadly worded limitations explicitly recited in the claim is a quite different thing from reading limitations of the specification into a claim to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim. *In re Prater*, 415 F.2d 1393, 1405 (CCPA 1969).

"It is well established that the objective evidence of nonobviousness must be commensurate in scope with the claims." *In re Lindner*, 457 F.2d 506, 508 (CCPA 1972).

ANALYSIS

Although Harding does not expressly state that the panels undergoing inspection are moving, we find that the skilled artisan would have appreciated from the automated automobile parts inspection teachings of this reference that the parts undergoing inspection on an automated line would be continuously moving as set forth in the claims on appeal. Even if the automated inspection in Harding is not continuously moving, we agree with

the Examiner's rationale that it would have been obvious to the skilled artisan to inspect the Harding panel for flatness while it is moving based on the teachings of Pirlet. As indicated *supra*, Pirlet also teaches that it is known to inspect moving hot metal surfaces for flatness.

In view of the collectively known teachings for inspecting hot metal surfaces while those metal surfaces are undergoing movement, we find that the Examiner has set forth a rationale basis for a finding of obviousness. *See KSR*, 127 S. Ct. at 1739 (2007).

The evidence submitted by Appellants to rebut the Examiner's finding of obviousness is in the form of a declaration by one of the inventors of the subject application. Claims 8 to 10 and 14 on appeal refer to a "hot" metal strip, but are completely silent as to an "extremely hot" metal strip "red/orange in its appearance" (Declaration 3), or a "red-glowing" metal strip "glowing bright red" (Declaration 4). The same claims are equally silent as to "darker areas" that are due to a "difference in temperature" (Declaration 4 and 5). As indicated *supra*, evidence that is not commensurate in scope with the claimed invention can not serve to prove the nonobviousness of the claimed invention. *See In re Lindner*, 457 F.2d at 508. The declarant's contentions (Declaration 5 to 8) concerning reflective surfaces that are inspected in Harding have been considered, but they are not deemed convincing of the nonobviousness of the claimed invention primarily because the claims on appeal do not preclude the testing of reflective metal surfaces. More importantly, as indicated *supra*, Harding expressly states that the camera 14 detects the grid line pattern as broadly set forth in the claims on appeal. The declarant's position (Declaration 6 and 7) that Harding's camera takes more than a "single" picture is not convincing

of the nonobviousness of the claimed invention since the claims are silent as to the number of pictures taken during the flatness measurement of the metal strip.

In summary, we find that the Examiner's evidence of obviousness of claims 8 to 10 and 14 outweighs the evidence of nonobviousness presented by Appellants.

Turning to claims 11 to 13 and 15, we find that the skilled artisan would have known from the teachings of Harding and Pirlet how to measure the flatness of a metal surface including an end face of a coiled metal strip. Stated differently, the projected grid pattern in Harding will form a grid pattern on the end face of the coiled metal strip in the same manner that it forms such a pattern on the automobile metal panel. In summary, neither the evidence of nonobviousness nor Appellants' arguments (Br. 17 and 18) convince of any error in the obviousness rejection of claims 11 to 13 and 15.

CONCLUSION OF LAW

The Examiner has established the obviousness of claims 8 to 15.

ORDER

The obviousness rejection of claims 8 to 15 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED

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